

REMARKS

This is responsive to the Office Action mailed on March 15, 2007. In that Office Action, claims 1, 2, 4-8, 17, 18 and 20-24 were rejected. Claims 1, 2, 4-8, 17, 18 and 20-24 continue in this application.

The Office Action rejected claims 1, 2, 4, 8, 17, 18, 20 and 24 under 35 U.S.C. § 103(a) as being unpatentable over the Ruuttu et al. (WO 01/38005) in view of Cox, Jr. U.S. Patent No. 3,007,608. The Office Action alleged that Ruuttu et al. teaches an apparatus for coating a workpiece with a coating solution comprising a coating chamber in which the workpiece is coated, a coating solution supply container for supplying the coating solution to the coating chamber, a fluid connection fluidly connecting the coating chamber and the coating solution supply container such that the coating solution is flowable or capable of flowing between the coating chamber and the coating solution supply container as depicted by the arrows in Figure 4 wherein the container is positionable to different elevations allowing coating solution flow from the supply container to the coating chamber and vice versa. The Office Action stated that Ruuttu et al. did not teach the use of a deformable or collapsible bladder type coating solution supply container.

The Cox Jr. patent was cited alleging that it teaches the design of a dispensing system which includes a removable deformable or collapsible supply container arranged in a support tank or carton that dispenses the liquid directly through the hose. The Cox Jr. patent was further cited alleging that it teaches a smooth or laminar flow occurs through the hose which acts as pouring spout to dispense liquid therefrom and that Cox, Jr teaches the bag collapses as liquid is withdrawn and no gains from air admission occurs which would disturb the steady dispensing flow. Cox Jr. is cited as teaching tipping or tilting the removable deformable or collapsible supply container arranged in a support tank or carton to dispense the liquid therefrom.

The Examiner concludes that it would have been obvious to modify Ruuttu et al by substituting its supply tank assembly with a deformable or collapsible bladder dispensing supply system such as taught by Cox, Jr. for the taught advantage of such a supply tank assembly.

Applicant respectfully disagrees.

The Cox Jr. patent describes a dispensing package having a rigid support tank and a open top liner bag. A dispensing conduit is then attached to the open top for easy dispensation of the beverage within. The dispensing package is for use with liquids such as milk which are filled,

transported and the contents therein dispensed by any layperson who desires to use the beverage. The Cox Jr. patent does not contemplate having liquid flowing back into the liner bag.

Prior art references must be viewed as a whole. In relying upon a reference under 35 U.S.C. §103, the “examiner must determine what is ‘analogous prior art’ for the purpose of analyzing the obviousness of the subject matter at issue”. Determining whether something is analogous art can be a difficult thing to do.

One criteria for determining whether references are analogous is the consideration of the similarities and differences in structure and function of the inventions. (MPEP 2141.01(a)). In *In re Clay*, (966 F.2d 656, 23 USPQ2d 1058 (Fed. Cir. 1992)) (which is discussed in MPEP) 2141.01(a), a prior art reference described using a gel for reducing the permeability of natural underground hydrocarbon bearing formations. This reference was used to reject claims that were directed to a process for storing a liquid hydrocarbon in a storage tank having a dead volume in which a similar gel was used to prevent loss (flow) of liquid hydrocarbon. The Patent Office (PTO) found that the reference and the claimed invention were part of the “same endeavor.” The Federal Circuit reversed and found the cited reference was not reasonably pertinent to the problem “of dead volume in tanks for refined petroleum”. *Id.*

Dispensing liquids such as milk from bulk liner bags in rigid containers is not reasonably pertinent to the problem of providing coating solutions to a coating chamber. In view of this, the Cox Jr. patent is nonanalogous art. A person of ordinary skill in the art of dip coating a workpiece would not turn to the art of dispensing milk for guidance. These two references may not be combined by the Examiner to reject the claims under 35 U.S.C. §103(a) since the only motivation to do so is applicant’s application.

Even if *Ruutuu et al* and *Cox Jr.* were combined, the Applicants submit that a *prima facie* case of obviousness is not established. In order to establish a *prima facie* case of obviousness, three basic criteria must be met (MPEP §2143). First, there must be some suggestion or motivation, either in the references themselves or the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference or references when combined must teach or suggest all the claim limitations.

The alleged combination of the Ruuttu et al. PCT published patent application in view of the Cox, Jr. U.S. patent does not meet the first criterion. A rigid container used as a coating solution supply container as in Ruuttu et al will not let fluid flow out or in at a given elevation. In contrast, a deformable container, as in the present invention, allows the level of coating solution in the supply container to change in relation to the change in the volume of the deformable container. There is no motivation or teaching in Ruuttu et al. to utilize a deformable coating solution supply container. One of ordinary skill in the art might predict that deformation of a collapsible container might cause sudden and unpredictable rates of changes in the levels of coating solution in the coating chamber. Such unpredictable changes would be thought undesirable and motivate one of ordinary skill in the art away from contemplating a deformable coating solution supply container.

Furthermore, "the smooth flow" of the Cox Jr. patent as stated by the Examiner while sufficient for dispensing milk does not teach or suggest that a flow from a liner bag would be sufficiently vibration free in the context of coating a workpiece. In fact, even minor vibrations are to be avoided using the apparatus of the Ruuttu et al. See Page 1, lines 18-22. There is no teaching or suggestion that a liquid can be even withdrawn back into the liner bag of Cox Jr., let alone having a solution go back and forth without the minor vibrations described in Ruuttu et al.. The Cox Jr. does not teach or suggest that the plastic liner bag can be attached to another container from which the solutions can be exchanged back and forth in a manner amenable to coating a workpiece.

With regard to the second criteria, there is no teaching or suggestion in the Cox Jr. patent regarding the method or success of fluids such as coating solutions going back and forth into the thin plastic liner bag. There is no teaching or suggestion in the Cox Jr. patent that the liner bag can be fluidly connected to a coating chamber such that the fluids can be transferred back and forth. Neither Ruuttu et al nor the Cox Jr. patent, alone or combined, provide a reasonable expectation of success for the present invention to one of ordinary skill in the art.

With regard to the final criteria, the liner bag in the Cox Jr. patent requires the presence of a rigid support tank such that the liner bag must be placed in the rigid tank before inversion and release of the liquid. The combination of Ruuttu et al and Cox Jr would require the presence of a rigid support tank. There is no such claim limitation in the present application.

The only place where one can find the motivation or suggestion for using a deformable bag for coating a workpiece is Applicant's disclosure. To use Applicant's disclosure as a guide is impermissible.

In view of the above, it is respectfully requested that the rejection of claims 1, 2, 4, 8, 17, 18, 20 and 24 under 35 U.S.C. § 103(a) as being unpatentable over Ruuttu et al. in view of Cox Jr. be withdrawn and the claims allowed.

The Office Action also rejected claims 5, 7, 21 and 23 under 35 U.S.C. § 103(a) as being unpatentable over Ruuttu et al. in view of Cox Jr. patent, and Cranskens et al. U.S. Patent 3, 296,951. The Office Action cited Cranskens et al. alleging that it disclosed a plate to apply pressure to a collapsible or deformable supply bag to supply coating material to a coating chamber and the release of the plate to relieve pressure to enable coating material to flow back into the coating material supply bag. Cranskens et al. describes a photocopying apparatus that utilizes a spring pressure plate 31 for compressing a developer bag 34 that supplies developer fluid into a developer dish through a sleeve 35. However, as discussed above, with respect to the combination of Ruuttu et al. and the Cox Jr. patent, there is no motivation nor is there any suggestion in either of those references themselves or in the knowledge generally available to one of ordinary skill in the art to combine such reference teachings. In view of the discussion above with respect to Ruuttu and the Cox Jr. patent, it is respectfully requested that the rejection of claims 5, 7, 21 and 23 in further view of Cranskens be withdrawn and the claims allowed.

The Office Action also rejected claims 5-7 and 21-23 under 35 U.S.C. § 103(a) as being unpatentable over Ruuttu et al. in view of Cox Jr. patent, and Takeuchi U.S. Patent 5,882,735. The Office Action stated that it was known in the art at the time the invention was made to use a plate to apply pressure to a collapsible or deformable supply bag such as taught by Takeuchi to supply coating material to a coating applicator and obviously the release of the plate to relieve pressure to enable coating material to flow back into the coating material supply bag as shown in Figure 3A-3B. The Office Action also stated that, alternatively, fluid pressure applied to a collapsible or deformable supply bag arranged in a holding chamber to supply coating material to a coating applicator and obviously the release of such fluid pressure would enable coating material to flow back into the coating material supply bag as shown by Takeuchi in Figure 2A-2B. The Office Action concluded that in light of Takeuchi it would have been obvious to one of ordinary skill in

the art to provide a pressure supply/release plate in communication with the plasma bag in the Ruuttu coating apparatus as modified in the manner as discussed above in order to enable supply and removal of coating material from the coating chamber.

Applicant respectfully disagrees.

The Takeuchi patent relates to dispersing a coating onto automotive parts. All of the disclosure in Takeuchi is related to release of the coating material onto a solid surface. There is no teaching or suggestion in Takeuchi related to the uptake of the coating back into the coating solution supply cartridge. Both Fig. 2A-2B and Fig. 3A-3B that the Examiner cites pertain to cartridges in the before and after shrinkage states. (See col. 3, lines 33-45, and col. 3 lines 63 to col. 4 line 12) Applicant submits that a Fig. 3A and Fig. 3B are mislabeled and that Fig. 3B is the "before" coating and Fig. 3A is "after" coating has been dispersed from the cartridge. There is no discussion related to coating material being reintroduced back into the cartridges. In fact, Takeuchi teaches removal of the cartridge from the holder prior to filling with additional coating. (See col. 3, lines 46-52) There is no teaching or suggestion that the coating solution is flowable back and forth from supply containers of Takeuchi.

As discussed above, with respect to the combination of Ruuttu et al. and the Cox Jr. patent, there is no motivation nor is there any suggestion in either of those references themselves or in the knowledge generally available to one of ordinary skill in the art to combine such reference teachings. In view of the discussion above with respect to Ruuttu in view of Cox Jr. and further in view of Takeuchi, it is respectfully requested that the rejection of claims 5-7 and 21-23 be withdrawn and the claims allowed.

In view of all of the above, it is believed that all of the claims are now in condition for allowance and reconsideration and allowance are respectfully requested.

Respectfully submitted,

Date

Nov 4, 2007

By:

[Signature]

Kent S. Kokko, Reg. No.: 33,931

Telephone No.: 651-733-3597

Office of Intellectual Property Counsel
3M Innovative Properties Company
Facsimile No.: 651-736-3833